SEQUENCE LISTING

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<120> Use of a gene for increasing the oil content in plants

<130> 12810-00140-US

<140> US 10/519,943
<141> 2004-12-29

<150> PCT/EP2003/007084
<151> 2003-07-03

<150> EP 02015344.1
<151> 2002-07-10

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<170> PatentIn version 3.3

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<222> (30)..(1994)

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agt gat agt ggt agt gat gta agc ttt ttt tcc gta aat gaa agc gaa 149
Ser Asp Ser Gly Ser Asp Val Ser Phe Phe Ser Val Asn Glu Ser Glu
25 30 35 40

ggt gaa ttg gat aca atg gag aaa gtg gat acc ttg att gga ggt gca 197
Gly Glu Leu Asp Thr Met Glu Lys Val Asp Thr Leu Ile Gly Gly Ala
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aga gtt ata agc aat aaa gta gaa aaa gac agc gat agt gaa caa agg 245
Arg Val Ile Ser Asn Lys Val Glu Lys Asp Ser Asp Ser Glu Gln Arg

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Glu Lys Gln Ala Ser Ala Ile Ser Leu Asp Ala Asp Asp Glu Asp Leu
     90                  95                 100

gat gaa att att tct tat tcg cat gac ggg aac tat gac agc tct cat   389
Asp Glu Ile Ile Ser Tyr Ser His Asp Gly Asn Tyr Asp Ser Ser His
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Lys Thr Phe Ser Phe Ser Leu Pro Phe Gly Asn Thr Asn Phe Arg Ser
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agt tca cca tta gcc ata att aaa act gtg ctt ccc aag act cca gat   485
Ser Ser Pro Leu Ala Ile Ile Lys Thr Val Leu Pro Lys Thr Pro Asp
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gag ttc atc aaa aag aat cta aga aag aat gag atc aag caa aaa ctg   533
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aaa aaa tca acc tcc att tct tcc ttg gaa gag ata gaa tta ttt aaa   581
Lys Lys Ser Thr Ser Ile Ser Ser Leu Glu Glu Ile Glu Leu Phe Lys
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tac gaa agg ggc att gat aat tca agg tta agg gct gtt aaa gaa tct   629
Tyr Glu Arg Gly Ile Asp Asn Ser Arg Leu Arg Ala Val Lys Glu Ser
185                 190                 195                 200

ttg gaa atg gat gcc ttg aag aac tcc att aag caa ata aca gca gac   677
Leu Glu Met Asp Ala Leu Lys Asn Ser Ile Lys Gln Ile Thr Ala Asp
                205                 210                 215

cca ttc gac aaa act cat gac gga tat tac cgt tcg cgt tta gaa tct   725
Pro Phe Asp Lys Thr His Asp Gly Tyr Tyr Arg Ser Arg Leu Glu Ser
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ata tgg aat gaa ttg gaa gga gat gtc gtt ata atg ggt gga tat cga   773
Ile Trp Asn Glu Leu Glu Gly Asp Val Val Ile Met Gly Gly Tyr Arg
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ggt agt gtg cta agg gat gct act act cat aag cga att tgg atc cca   821
Gly Ser Val Leu Arg Asp Ala Thr Thr His Lys Arg Ile Trp Ile Pro
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tta aag gca ggt ttg aat atg acg aaa gtc gat tta ttg atc gga cct   869
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265                 270                 275                 280

aat gac gaa gat gaa ctt aaa act cag aag gag att gtc cct gat gga   917
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agg cta gac gca aat cct aat tta aat gtt cag cag ttt ggc tat gat   1013
Arg Leu Asp Ala Asn Pro Asn Leu Asn Val Gln Gln Phe Gly Tyr Asp
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tgg aga tta tcc ttg gac ata tct gcc aag cat tta acg act aaa cta   1061
Trp Arg Leu Ser Leu Asp Ile Ser Ala Lys His Leu Thr Thr Lys Leu
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gag gaa att tac aat aag caa aaa aat aag aag gga ata tac atc att   1109
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act cat ttg ata aga ggt att att tac gtg ggt tcc cca agc caa tgt   1205
Thr His Leu Ile Arg Gly Ile Ile Tyr Val Gly Ser Pro Ser Gln Cys
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cca aat att tta ggt cct att agg ttt gga gat gat gtg atg tgg aat   1253
Pro Asn Ile Leu Gly Pro Ile Arg Phe Gly Asp Asp Val Met Trp Asn
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Phe Leu Pro Leu Asp Gly Arg Cys Phe Val Asp Lys Ile Thr Leu Glu
425                 430                 435                 440

agg tat gat ttc gat ttt ttt gat aca gat gtt tgg aaa acc ctt ggc   1397
Arg Tyr Asp Phe Asp Phe Phe Asp Thr Asp Val Trp Lys Thr Leu Gly
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ttg tca cct ctc gtc aat gag aaa aga gag gaa tca gct cac gaa aaa   1445
Leu Ser Pro Leu Val Asn Glu Lys Arg Glu Glu Ser Ala His Glu Lys
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tca aaa tta tta cca agg aaa acg aaa tca gcg ctt tcg ctt aaa gct   1493
Ser Lys Leu Leu Pro Arg Lys Thr Lys Ser Ala Leu Ser Leu Lys Ala
        475                 480                 485

acc cta aac gca act acc aag ttt gtc cta aat gca cct gtt gtt agg   1541
Thr Leu Asn Ala Thr Thr Lys Phe Val Leu Asn Ala Pro Val Val Arg
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aat gta gcc ggc aat aat aaa cag gta cca agg gat gtg cct ttc gat   1589
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Thr Leu Lys Arg Thr Lys Asn Tyr Leu Asp Ser Leu Asp Tyr Asp Pro
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aac aaa gaa tat cct cca ttg gcc atg gtt tac ggt aac aag gtt ccc   1733
Asn Lys Glu Tyr Pro Pro Leu Ala Met Val Tyr Gly Asn Lys Val Pro
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act gtt aga ggt gct aaa gtg aac ggt ata caa gat ata aaa gat ggg   1781
Thr Val Arg Gly Ala Lys Val Asn Gly Ile Gln Asp Ile Lys Asp Gly
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aat tat gaa gat ttt tac tat ggt ccg ggc gac ggt gtt gtt cac cat   1829
Asn Tyr Glu Asp Phe Tyr Tyr Gly Pro Gly Asp Gly Val Val His His
585                 590                 595                 600

aaa tgg tta ttg cct gaa cag aga ggc ttt cca gtt gtt tgt aaa atc   1877
Lys Trp Leu Leu Pro Glu Gln Arg Gly Phe Pro Val Val Cys Lys Ile
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gcc agt tct tca ggt cat gtt agc tta atg acg gat ttg aaa tca atg   1925
Ala Ser Ser Ser Gly His Val Ser Leu Met Thr Asp Leu Lys Ser Met
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gca aaa gca ttc ata tct atc gtc gac agc gaa aaa gaa gga aga aga   1973
Ala Lys Ala Phe Ile Ser Ile Val Asp Ser Glu Lys Glu Gly Arg Arg
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tct cga aca cga act tct tca tgaaaggctt tttattcctt tgtttactat      2024
Ser Arg Thr Arg Thr Ser Ser
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         35                  40                  45

Val Asp Thr Leu Ile Gly Gly Ala Arg Val Ile Ser Asn Lys Val Glu
     50                  55                  60

Lys Asp Ser Asp Ser Glu Gln Arg Gly Arg Lys Lys Glu Thr Thr Gly
 65                  70                  75                  80

Pro Asn Asn Tyr His Asn Leu Glu Glu Lys Gln Ala Ser Ala Ile Ser
                 85                  90                  95

Leu Asp Ala Asp Asp Glu Asp Leu Asp Glu Ile Ile Ser Tyr Ser His
            100                 105                 110

Asp Gly Asn Tyr Asp Ser Ser His Lys Thr Phe Ser Phe Ser Leu Pro
        115                 120                 125

Phe Gly Asn Thr Asn Phe Arg Ser Ser Ser Pro Leu Ala Ile Ile Lys
    130                 135                 140

Thr Val Leu Pro Lys Thr Pro Asp Glu Phe Ile Lys Lys Asn Leu Arg
145                 150                 155                 160

Lys Asn Glu Ile Lys Gln Lys Leu Lys Lys Ser Thr Ser Ile Ser Ser
                165                 170                 175

Leu Glu Glu Ile Glu Leu Phe Lys Tyr Glu Arg Gly Ile Asp Asn Ser
            180                 185                 190

Arg Leu Arg Ala Val Lys Glu Ser Leu Glu Met Asp Ala Leu Lys Asn
        195                 200                 205

Ser Ile Lys Gln Ile Thr Ala Asp Pro Phe Asp Lys Thr His Asp Gly
    210                 215                 220

Tyr Tyr Arg Ser Arg Leu Glu Ser Ile Trp Asn Glu Leu Glu Gly Asp
225                 230                 235                 240

Val Val Ile Met Gly Gly Tyr Arg Gly Ser Val Leu Arg Asp Ala Thr
                245                 250                 255

Thr His Lys Arg Ile Trp Ile Pro Leu Lys Ala Gly Leu Asn Met Thr
            260                 265                 270

Lys Val Asp Leu Leu Ile Gly Pro Asn Asp Glu Asp Glu Leu Lys Thr
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Gln Lys Glu Ile Val Pro Asp Gly Met Leu Thr His Ile Gly Pro Val
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Asp Ile Ser Lys Arg Leu Ile Lys Arg Leu Asp Ala Asn Pro Asn Leu
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Ala Lys His Leu Thr Thr Lys Leu Glu Glu Ile Tyr Asn Lys Gln Lys
            340                 345                 350

Asn Lys Lys Gly Ile Tyr Ile Ile Ala His Ser Met Gly Gly Leu Val
        355                 360                 365

Ala His Lys Val Leu Gln Asp Cys Thr His Leu Ile Arg Gly Ile Ile
    370                 375                 380

Tyr Val Gly Ser Pro Ser Gln Cys Pro Asn Ile Leu Gly Pro Ile Arg
385                 390                 395                 400

Phe Gly Asp Asp Val Met Trp Asn Lys Leu Phe Ser Leu Arg Thr Asn
                405                 410                 415

Phe Phe Met Arg Ser Ser Phe Tyr Phe Leu Pro Leu Asp Gly Arg Cys
            420                 425                 430

Phe Val Asp Lys Ile Thr Leu Glu Arg Tyr Asp Phe Asp Phe Phe Asp
        435                 440                 445

Thr Asp Val Trp Lys Thr Leu Gly Leu Ser Pro Leu Val Asn Glu Lys
    450                 455                 460

Arg Glu Glu Ser Ala His Glu Lys Ser Lys Leu Leu Pro Arg Lys Thr
465                 470                 475                 480

Lys Ser Ala Leu Ser Leu Lys Ala Thr Leu Asn Ala Thr Thr Lys Phe
                485                 490                 495

Val Leu Asn Ala Pro Val Val Arg Asn Val Ala Gly Asn Asn Lys Gln
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Val Pro Arg Asp Val Pro Phe Asp Glu Val Phe His Thr Ser Tyr Glu
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Asp Ser Cys Glu Tyr Leu Ala Arg Thr Leu Lys Arg Thr Lys Asn Tyr
    530                 535                 540

Leu Asp Ser Leu Asp Tyr Asp Pro Asn Lys Glu Tyr Pro Pro Leu Ala
545                 550                 555                 560

Met Val Tyr Gly Asn Lys Val Pro Thr Val Arg Gly Ala Lys Val Asn
                565                 570                 575

Gly Ile Gln Asp Ile Lys Asp Gly Asn Tyr Glu Asp Phe Tyr Tyr Gly
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Pro Gly Asp Gly Val Val His His Lys Trp Leu Leu Pro Glu Gln Arg
        595                 600                 605
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Gly Phe Pro Val Val Cys Lys Ile Ala Ser Ser Ser Gly His Val Ser
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Asp Ser Glu Lys Glu Gly Arg Arg Ser Arg Thr Arg Thr Ser Ser
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